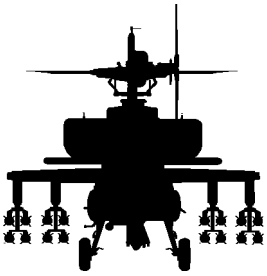
DCMC



FLIGHT OPERATIONS RISK ASSESSMENT

APT GUIDEBOOK

VERSION 2 – 1 May 1997

INSTRUCTIONS

Those who cannot remember the past are condemned to repeat it. -George Santayana

PURPOSE

- For use by DCMC Aviation Program Teams (APTs), Service Government Flight Representatives and DoD aviation contractors as part of an overall Operational Risk Management program.
- Fulfills the requirements identified in the joint regulation DLAM 8210.1/NAVAIRINST 3710.1/AR 95-20/AFR 55-22, Volume 2, Chapter 4, Contractor Flight and Ground Operations Surveys, to conduct annual reviews of DoD aircraft contractor flight & ground operations..
- Provides a forum for open discussion between the APT, the contractor, and the Program Office (customer) on where the Government's risks lie and what methods can be employed to lower the risk.
- Designed to lower RISK, *not* to lower the risk numbers (i.e. don't get wrapped around the axle on the numbers; IT'S THE PROCESS THAT'S IMPORTANT!)

PRE-SURVEY

- Obtain a copy of the Risk Assessment Worksheets on disk with a paper copy as backup. See the Flight Operations Team web link at www.dcmc.dcrb.dla.mil for the latest version of this guide and the Worksheets. The Worksheets contain an embedded MS Excel Spreadsheet for calculating overall risk.
- Locate a resource at the facility that allows you use of computer(s) w/MS Word and Excel.
  - If computer(s) not available--use interim hard copy.
- Complete review of Contracts, Contractor's Procedures, applicable industrial/safety directives, past reports, surveys, RAs, internal audits, mishap investigations, past CARs, corrective actions and required training records.
- Complete aircrew testing, flight evaluations and ARFF exercise (These can be done prior to or during risk assessment).
- Locate a common location for team(s) to meet.
- Develop coordinated time table for RA process.
- Invite and encourage the CAO Commander and ACO to participate in the RA process or at the very least attend the in-brief and out-brief.
- Identify the participants from the program office, contractor points-of-contact, on-site CAS representatives, and APT members who will form the RA teams. Example make up of RA teams would be-
  - Team 1: GFR/contractor chief pilot/PM safety rep- looking at flight operations & misc. sub-processes.
  - Team 2: AMM/contractor maintenance manager/on-site QA- looking at ground ops sub-process.

    - Team 3: SS/contractor safety manager/fire chief/PM safety rep- looking at safety & facilities sub-processes.
- These are only examples. Forming one large team or many smaller teams is a matter of personal preference for the GFR.

IN-BRIEF

- With team(s) assembled introduce all members (team members can include the contractor, on-site CAS personnel, the customer (program office representatives), and of course APT members).
- Cover process overview, risk assessment objectives, definitions, and deliverables.
- Focus on the process. The High/Medium/Low Risk numbers are far less important than:
    - The dialog between team members.
    - Understanding where the contractor/Government team is today.
    - What must be done to lower risk.
- Pass out sign-in sheet; include name, office, phone numbers, e-mail addresses of team members for use during and after assessment.
- Cover the concept of "Constructive Change".
- Discuss RA timetable and team reporting responsibilities.
    - Report will include:
        - CAO Commander/ACO Risk Assessment cover letter
        - Executive Summary (List of participants, background information, narrative)
        - Findings or observations requiring corrective action (if any)
        - RA spreadsheet; Facility Data Sheet; Worksheets.
    - Report will NOT include:
        - The Worksheets in distribution copies; place in original file copy of RA only.
        - Any discussion concerning Performance Based Management in the Risk Assessment Executive Summary. This RA process is intended to lower risk.

ASSESSMENT

- Determine which of the 16 areas don't apply to contractor/facility & eliminate them.
- If more than one team is formed divide Worksheets between teams.
- The Worksheet matrixes are only guides. There may be risk elements applicable to your location not listed in certain areas of the assessment Worksheets (e.g. flight environment) that may have a significant impact on your risk. Justify any deviations from the Worksheet matrixes in the Past & Future Risk sections of the front side of each Worksheet.
- Remember "It's the Process that's important." So, even though the Worksheet matrices are written so that 99% of the time it should be intuitively obvious even to the most casual observer (and every team member) where the contractor's risk level is at for each sub-category, as long as each team member understands what must be done to lower risk you've succeeded.

- The checklists found behind each Worksheet are for assisting your team in reviewing contractor operations. They represent historical areas APTs normally look at during surveys. You do not have to limit your review to the areas in the checklist or Worksheet.
- Each team will assesses their Worksheet sub-processes by jointly reviewing, revising, and concurring on the Past Risk Worksheet sections. Fill in Past Risk section of Worksheets with justification bullets.
- Conduct a facility walk-through reviewing areas highlighted during Past Risk discussions.
- Reassemble the entire team, discuss what you've found during the walk-through. Validate Past Risk Worksheet statements and risk levels.
- Each team jointly assesses their Worksheet sub-processes by jointly reviewing, revising, and concurring on the Future Risk Worksheet sections and jointly assigning the appropriate risk level.
    - Use any source of past performance up to 2 years old (depending on the Worksheet guidelines) and any future information available. Should team members disagree on Past or Future risk levels, enter a note on the Worksheets as to who disagrees and why. Record risk levels and bullet/narrative background information on Worksheets. Remember it is the joint APT/contractor/ customer team interaction that is most important here. The difference between a low or medium risk level for one sub-process will probably not have a significant impact on the overall numerical risk level. However, properly identifying and documenting where the Government's risk lies so that all team members are clear on what steps can be taken to reduce those risks, can have a significant effect on real risk.
- Complete Spreadsheet to determine numerical risk level. The assigned values for overall risk are 2.0-3.3 (low), 3.4-4.7 (medium), 4.8-6.0 (high).
- Complete Executive Summary
    - A concise narrative of important observations (positive and negative) from the Worksheets. An example format is included in this guide.
    - DO NOT include any discussion concerning Performance Based Management in the Risk Assessment Executive Summary.
    - An example format for the Executive Summary is included in this Guidebook.
- Conduct a final contractor, customer, DCMC out-brief.

POST-ASSESSMENT

- Send completed report (do not include worksheets) to the contractor, through the CAO Commander/ACO. Ensure copies are distributed to District CFO, AQOI, and Customer.
- Follow-up on all observations requiring corrective actions by the contractor.
- Did we mention the importance of following up on corrective actions?
- If, during the RA the team(s) identify an exemplary or "Benchmark" process, you may wish to pass on that process to others. Your contractor's processes are "proprietary". Obtain written permission from the contractor before proceeding. If they agree their in-house "Benchmark" safety procedures may become the industry standard. Send AQOI documentation on the process in an electronic format. AQOI will use the Benchmark procedures to improve

contractor operations throughout DCMC ensuring the proper credit is given to the originators of the process.

ETCETERA

- Formal Risk Assessments are but a small part of Operational Risk Management (ORM).
- ORM includes 1) identifying hazards 2) assessing hazards 3) making risk decisions 4) implementing controls & 5) supervision.
- The DoD pays contractors a great deal of money to protect our extremely valuable National assets while conducting ground and flight operations.
- Those operations are inherently dangerous.
- Where there are aircraft there are always risks.
- Your job is to ensure the contractor is effectively managing those risks.
- This RA process along with the rest of ORM can make a significant difference in the Governments risk.

> Resting on your laurels is as dangerous as resting when you are walking in the snow. You doze off and die in your sleep.
>
> -Ludwig Wittgenstein

RISK CATEGORY ASSESSMENT WORKSHEET
ELEMENT/SUBELEMENT

ELEMENT: **Flight Operations**
SUBELEMENT: **Safety**
ITEM: **Safety Program**

EXAMPLE

1. RISK - CONTRACTOR PAST:

- 2 Class C mishaps within last 10 months
- CARs are not analyzed for root causes or systemic trends
- Pre-mishap plan contained several old (non-current) phone numbers
-
-

RISK RATING: 2

2. RISK - CONTRACTOR FUTURE:

- Contractor developing new computer program to track CARs for systemic problems. Should be in-place next month.
- No reportable mishaps in last 6 months
- Errors in Pre-mishap plan corrected during RA
-
-

RISK RATING: 1

PREPARED BY: CMSgt Bill Gates **DATE:** 3 May 1997

RISK ASSESSMENT SPREADSHEET EXAMPLE

FLIGHT & GROUND OPERATIONS RISK ASSESSMENT																	[2.0-3.3=low, 3.4-4.7=med, 4.8-6.0=high]			
SUBELEMENT	ITEM (Weight)				PAST		FUTURE				WEIGHT		SUBTOTAL							
Safety																				
	Safety Program				2	+	1	=	3	X	2	=	6				3.0			
	2				4		2										LOW			
Ground Operations																				
	Ground Procedures				2	+	1	=	3	X	3	=	9				3.8			
	3				6		3										MEDIUM			
	FOD & Tool Cont.				2	+	2	=	4	X	2	=	8							
	2				4		4													
	Trng & Cert.				3	+	2	=	5	X	2	=	10							
	2				6		4													
	Engine Run				2	+	1	=	3	X	1	=	3							
	1				2		1													
	CARs				2	+	2	=	4	X	1	=	4							
	1				2		2													
Facility																				
	ARFF				3	+	2	=	5	X	2	=	10				5.3			
	2				6		4										HIGH			
	Facilities & Prop.				3	+	3	=	6	X	1	=	6							
	1				3		3													
Flight Operations																				
	Flight Procedures				1	+	1	=	2	X	3	=	6				3.7			
	3				3		3										MEDIUM			
	Flight Environment				3	+	2	=	5	X	2	=	10							
	2				6		4													
	Flight Crew				2	+	2	=	4	X	2	=	8							
	2				4		4													
	Flt. Hours/Sorties				1	+	3	=	4	X	1	=	4							
	1				1		3													
	Flt. Plans & Apprvl				3	+	2	=	5	X	1	=	5							
	1				3		2													
	Deployed Ops				3	+	1	=	4	X	1	=	4							
	1				3		1													
Miscellaneous																				
	Ctract Prov & Waiv				3	+	2	=	5	X	1	=	5				4.5			
	1				3		2										MEDIUM			
	Host Nation				2	+	2	=	4	X	1	=	4							
	1				2		2				V		TOTAL							
Column subtotal divided by					58		44				V		102					OVERALL		
rated items total weights					26		26				V		DIVIDE					RATING		
					2.2	*Future>*	1.7				26	>>>	26	>>>>	>>>>>>		3.9	MEDIUM		

(NOTE: In the soft copy of this matrix this page is an imbedded MS Excel Spreadsheet file. If you have Excel installed you can access the spreadsheet through MS Word by double clicking on the spreadsheet.)

DCMC FLIGHT OPERATIONS RISK ASSESSMENT
ACME AEROSPACE CORPORATION
P.O. BOX 244, 555 International Blvd.
Orlando, FL

EXAMPLE

I. EXECUTIVE SUMMARY

A. INTRODUCTION/TEAM MEMBERS

The Annual Flight Operations Risk Assessment (RA) of ACME Aerospace Corporation was accomplished 7-11 April, 1997. The overall risk assessment value calculated during this RA was **2.8-Low Risk**. The following RA team members conducted the RA:

LT John M. Waldron, Government Flight Representative, DCMDE-OAF
MSgt Mark Lathrop, Aviation Maintenance Manager, DCMDE-OAF
Ms. Cindy Maxwell, Safety Specialist, DCMDE-GADF
Mr. George Peppard, Chief ACME Pilot
Ms. Christy Lynn, ACME Evaluator Pilot
Mr. Amos Moses, ACME Maintenance Manager
Mr. Ron McDonald, ACME Safety Manager
Major J. L. Picard, MICOM Program Office
LT Karen Swanson, NAVAIR 09F1
Mr. John Sheridan, OC/ALC SE

To the maximum extent possible teams should be made up of customers, contractor representatives and APT members.

B. PURPOSE

The purpose of the RA is to assess the level of risk the Government incurs through its aircraft contracts with ACME. The RA process provides an open forum with ACME the program offices and the Aviation Program Team (APT) jointly determining where the Government's risks lie and what steps can be taken to properly manage those risks. This RA fulfills the requirement of the joint regulation DLAM 8210.1/NAVAIRINST 3710.1/AR 95-20/AFR 55-22, to conduct an annual review of contractor operations covered by the Ground & Flight Risk Clause (DFARS 252.228-7001). In conjunction with the RA the team examined ACME's Contractor's Procedures, contractual requirements, and ground & aircrew qualifications. The analysis contained in this report provides a tool to manage and lower risk. The goal is to improve the safety and security for all personnel involved and to better protect and conserve government resources.

Notice no mention of performance based staffing model. Effective risk management is the real objective Of the RA process.

This report includes the Executive Summary narrating the teams' observations, Findings that require actions to meet contractual requirements, the RA Spreadsheet that calculates the overall risk value, and the Facility Data Sheet which provides important POC information about the operations and contracts at ACME.

The information herein is to be considered and is not to be distributed outside ACME, owning program offices, or DCMC CAS channels.

C. DISCUSSION

There are a wide range of acceptable formats for RA reports as long as the reports are clear, concise, and focused on effectively identifying and managing risk.

1. Safety Program. ACME's safety program has all the right elements and excellent management support. All ACME personnel demonstrate a good attitude towards safety. The flight operations section holds regular safety meetings. The meetings are well documented and cover a wide variety of relevant subjects. Supervisors regularly discuss safety considerations with the aircraft technicians at the beginning of each shift. There are sound, written procedures for both ground and flight safety. APT teaming with ACME management of this process has reduced manageable risk to a **Low** (2.0*) level.

2. Ground Operations.

*See RA Spreadsheet sub-element risk level computations.

a. ACME's Contractor's Procedures for ground handling of aircraft have been reviewed extensively for the adequacy and adherence over the past several years. Historically, ACME personnel have had thorough knowledge of the procedures. A large number of the technicians formed the basis of the teams that developed ACME's Contractor's Procedures. No procedural violations were noted during the RA.

b. Foreign Object Damage Control Program. ACME's FOD program . . .

c. Training and Certification. . . .

d. Engine Run Procedures. . . .

e. Corrective Action Requests (CARs). . . .

The Ground Operations sub-element has been rated as a _____ (X.X) risk.

3. Facility and Property Protection.

a. ARFF. . . .

b. Facilities and Property. . . .

The Facility and Property Protection sub-element was rated as a _____ (X.X) risk.

4. Flight Operations.

a. Flight Operation Procedures. . . .

b. Flight Environment. . . .

c. Flight Crews. . . .

d. Flight Hours and Sorties. . . .

e. Flight Plans and Approval. . . .

f. Deployed Operations. . . .

The Flight Operations sub-element was rated as a ____ (X.X) risk.

5. Miscellaneous.

a. Contract Provisions/Waivers. . . .

b. Host Nation. . . .

The Miscellaneous sub-element was rated as a _____ (X.X) risk.

II. FINDINGS

A. ACME's management has been extremely responsive with prompt corrective action to past deficiencies. Usually, discrepancies are corrected on the spot or within 24 hours. Those discrepancies that are not correctable immediately are always given the highest priority possible through the Consolidated Safety Council. Finding a contractual deficiency at any contractor's facility is easy. Correcting the root cause of the deficiency is a much harder process and requires a cooperative effort from management, employees and the CAS office. Sandman Aerospace Corporation should be commended in this area.

B. The following items were identified as deficiencies and require a response to the Government Flight Representative, through the ACO, within 30 days after receipt of this letter.

Finding #1. Several compressed gas cylinders were discovered in the tire assembly area containing . . .
Reference: ACME's Contractor's Procedures, Section XII, page 3, paragraph 8.c.

Recommendation. Tire assembly personnel should be instructed during refresher training not to use the helium to imitate Donald Duck's voice.

Finding #2. There's something disturbing about the ground crews sleeping on the flight line.
Reference: Contract, Appendix C, page 32, paragraph xii.

Recommendation. Remove the beer kegs from the flight line.

QUESTIONS?

If you have any questions concerning the Risk Assessment process contact your District CFO, AMM, or SS manager, or AQOI.

East

• CFO	Lt Col Mike Clover, USAF, mclover@dcrb.dla.mil	617-753-4208	DSN 955-4208
• AMM	Mr. Mike Lathrop boa5817@dcrb.dla.mil	617-753-4078	DSN 955-4208
• SS Mgr	Mr. Bruce Fraser wfraser@dcrb.dla.mil	617-753-3154	DSN 955-3154
• SS Mgr	Mr. Donald Waldrop dwaldrop@dcrb.dla.mil	617-753-31396	DSN 955-3396

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